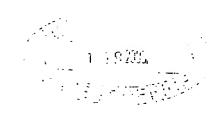
PATENT COOPERATION TREATY PCT

INTERNATIONALSEARCHREPORT

(PCT Article 18 and Rules 43 and 44)



Applicant's or agent's file reference R05161PCT	FOR FURTHER ACTION as wel	see Form PCT/ISA/220 ll as, where applicable, item 5 below.
International application No. PCT/JP2005/018396	International filing date(day/month/year) 28.09.2005	(Earliest) Priority Date (day/month/year) 30.09.2004
Applicant RICOH COMPANY, LTD.		
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.		
This international search report consists of a total of 2 sheets. It is also accompanied by a copy of each prior art document cited in this report.		
1. Basis of the report a. With regard to the language, the international search was carried out on the basis of:		
may, within one month from 6. With regard to the drawings, a. the figure of the drawings to be pu [as suggested by the app [as selected by this Auth	, according to Rule 38.2(b), by this Authority the date of mailing of this international search ablished with the abstract is Figure No	ch report, submit comments to this Authority 1 1 figure

INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/018396

A. CLASSIFICATION OF SUBJECT MATTER

C. DOCUMENTS CONSIDERED TO BE RELEVANT

(Family: none)

Enables degraments are listed in the continuation of Day C

Int.Cl. H01L21/3205 (2006.01), H01L21/768 (2006.01), H01L21/822 (2006.01), H01L21/8234 (2006.01), H01L23/52 (2006.01), H01L23/52 (2006.01), H01L27/04 (2006.01), H01L27/06 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl. H01L 21/3205, H01L 21/768, H01L 21/822, H01L 21/8234, H01L 23/52, H01L 23/522, H01L 27/04, H01L 27/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Published examined utility model applications of Japan 1922-1996
Published unexamined utility model applications of Japan 1971-2005
Registered utility model specifications of Japan 1996-2005
Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Y EP 1310998 A2 (Ricoh Company, Ltd.) 2003.05.14, 1-12 [0036] -[0138], Figs. 2-14 & JP 2003-152100 A, [0033]-[0111], Figs. 1-13 Y JP 9-17860 A (Sony Corporation) 1997.01.17, 1-12 [0002] -[0024] , Figs. 1-2 (Family: none) JP 2000-340562 A (Hitachi, Ltd.) 2000.12.08, Y 1-12 [0014]-[0017], Fig. 2 (Family: none) Y JP 2004-146548 A (Ricoh Company, Ltd.) 2004.05.20, 8-10

Claims 1, 5-6, [0020] -[0028], Figs. 1, 9-10

Further documents are listed in the continuation of Box C.	See patent family annex.	
Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such	
Date of the actual completion of the international search Date of mailing of the international search report		
26.12.2005	17.01.2006	
Name and mailing address of the ISA/JP Japan Patent Office 3.4.3 Kommisseedsi Chirada las Talma 100 8015 Japan	Authorized officer TOMOKAZU HAYAKAWA 4M 9 7 3 3	
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan Telephone No. +81-3-3581-1101 Ext. 3462		